

REMARKS

By the present amendment, claim 1 has been amended to recite that the semi-transmissible reflection layer is formed directly on the light-transmissible polymer substrate. Support for this recitation is found in the original application, in particular in the passage at page 5, lines 8-12, which refers to Fig. 1 clearly showing this feature. Further, claim 6 has been corrected to recite that the reflection polarizing element is used in the backlight. Claims 7-9 have been amended to clarify that the reduction in transmittance is the reduction in the transmitted light, as compared to incident light, when polarized light is incident on the semi-transmissible reflector type polarizer. Support for this recitation is found in the original application, in particular in the paragraph bridging pages 2-3 of the description. Also, claims 7-9 have been corrected to be dependent directly or indirectly on claim 3 instead of claim 1, and claims 10-12 have been corrected to recite a semi-transmissible reflector type polarizer in their preambles.

Claims 1-12 are pending in the present application. Independent claim 1, and claims 2-4 and 7-12 dependent directly or indirectly thereon, are directed to a semi-transmissible reflector. Claim 5, and claim 6 dependent thereon, are directed to a liquid-crystal display device and are dependent on claims 3 or 4.

In the Office Action, claims 6-9 are rejected under 35 U.S.C. 112, second paragraph, as indefinite. It is alleged in the Office Action that the recitation in claim 6 of a reflection polarizing element being used as a backlight is nonsensical, and that in claims 7-9, the term "reduction in transmittance" is a relative term which cannot be determined.

Reconsideration and withdrawal of the rejection is respectfully requested. Claim 6 has been corrected to clarify that the reflection polarizing element is used in the backlight, as

suggested in the Office Action, and claims 7-9 have been amended to clarify that the reduction in transmittance is the reduction in the transmitted light, as compared to incident light, when polarized light is incident on the semi-transmissible reflector type polarizer, as explained in the paragraph bridging pages 2-3 of the description. Also, claims 7-9 have been corrected to be dependent on claim 3 instead of claim 1.

In view of the above, it is submitted that the rejection should be withdrawn.

Next, in the Office Action, claims 1-3 and 5-6 are rejected under 35 U.S.C. 102(b) as anticipated by US 4,545,648 to Shulman (Shulman), claims 7-9 and 12 are rejected under 35 U.S.C. 103(a) as obvious over Shulman, and claims 4-6 and 10-11 are rejected under 35 U.S.C. 103(a) as obvious over Shulman in view of US 4,228,574 to Culley et al. (Culley). It is alleged in the Office Action that Shulman discloses a uniaxially stretched polarizer with a transflective layer deposited upon it, and a LCD construction using the polarizer-transflector element together with another polarizer.

Reconsideration and withdrawal of the rejection is respectfully requested. The transflective layer 48 of Shulman is applied to the outside protective layer 46 of the polarizing plate, not directly on the polarizing layer 45. In contrast, in the construction of the presently claimed invention, the semi-transmissible reflection layer is formed directly on the uniaxially drawn light-transmissible polymer substrate. This feature and its advantages are not taught or suggest in Shulman, which is completely silent as to direct application of a reflection layer on a uniaxially stretched film. Further, Culley, which concerns only the arrangement of various optical elements in a display, fails to remedy the deficiencies of Shulman. Therefore, the present claims are not obvious over Shulman and Culley taken alone or in any combination.

In view of the above, it is submitted that the rejections should be withdrawn.

Next, in the Office Action, claims 1-3, 5-9 and 12 are rejected under 35 U.S.C. 103(a) as obvious over US 4,093,356 to Bigelow (Bigelow) in view of US 3,912,369 to Kashnow (Kashnow) and US 4,533,214 to Penz et al. (Penz). It is alleged in the Office Action that Bigelow discloses an arrangement with a transflector, a quarterwave plate and a polarizer, with the transflector comprising a metal layer deposited on a glass plate, and that (i) Kashnow discloses depositing a reflecting metal layer directly on a quarterwave plate instead of on a glass plate, and (ii) Penz discloses depositing a reflecting metal layer on a uniaxially drawn material that is lighter than glass and stronger than isotropic polymers, so that it would have been obvious to apply these simpler techniques to the transflector of Bigelow.

The rejection is respectfully traversed. It is submitted that a person of ordinary skill in the art would not be motivated by Kashnow to modify Bigelow by forming a semi-transmissible layer directly on one of the quarterwave plates because Kashnow is directed to a reflector and not a transflector. Thus, contrary to the interpretation set forth in the Office Action, Kashnow does not provide any teaching or suggestion as to whether (i) a semi-transmissible layer could be successfully applied directly to a quarterwave plate, and/or (ii) whether such semi-transmissible layer would maintain appropriate optical properties to be successfully used in the transflective display of Bigelow.

In particular, it is noted that, in the transflective display of Bigelow, each quarterwave plate is stuck in the display with optical elements on both sides. In contrast, in the display of Kashnow, the reflector element is of course disposed as an outermost layer of the display. Thus, a person of ordinary skill in the art would not have been motivated to use a semi-transmissible layer deposited

on a quarterwave plate in the display of Bigelow, because there is no teaching or suggestion in either Bigelow or Kashnow as to (i) whether such a layer could be successfully applied to the quarterwave plate, as discussed above, and (ii) would function appropriately after it is stuck in the transfective display of Bigelow. In other words, the construction of the present claims could not have been derived from Bigelow and Kashnow except in hindsight. Further, Penz is silent as to a semi-transmissible layer, so that Penz fails to remedy the deficiencies of Bigelow and Kashnow. Therefore, the present claims are not obvious over Bigelow, Kashnow and Penz taken alone or in any combination.

In view of the above, it is submitted that the rejections should be withdrawn.

In conclusion, the invention as presently claimed is patentable. It is believed that the claims are in allowable condition and a notice to that effect is earnestly requested.

In the event there is, in the Examiner's opinion, any outstanding issue and such issue may be resolved by means of a telephone interview, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number listed below.

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In the event this paper is not considered to be timely filed, the Applicants hereby petition for an appropriate extension of the response period. Please charge the fee for such extension and any other fees which may be required to our Deposit Account No. 50-2866.

Respectfully submitted,

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